

## **REMARKS/ARGUMENTS**

The Applicants originally submitted Claims 1-28 in the application. The Applicants previously amended Claims 1, 6, 8, 13, 15, 20, 22 and 27. Presently, the Applicants amend independent Claims 1, 8, 15 and 22. No Claims have been canceled or added. Accordingly, Claims 1-28 are currently pending in the application.

### **I. Rejection of Claims 1-14 under 35 U.S.C. §103**

The Examiner has rejected Claims 1-14 under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent No. 6,434,233 to Bjarnason, *et al.* (Bjarnason) in view of U.S. Patent No. 5,809,033 to Turner, *et al.* (Turner).

The cited combination of Bjarnason and Turner does not teach or suggest each element of independent Claims 1 and 8. Bjarnason does not teach a noise prediction equalizer that is reconfigurable to concatenate with a decision feedback equalizer thereby forming a portion of a precoder in a transmit path as recited in Claims 1 and 8. Instead, the decision feedback equalizer (306, 406) of Bjarnason is configured to equalize an input signal of a receiver. (Column 5, lines 14-21). The Applicants do not find any suggestion in Bjarnason that the decision feedback equalizer is reconfigurable in any way. More specifically, the Applicants do not find where the decision feedback equalizer is reconfigurable to concatenate with a decision feedback equalizer as claimed in the present invention.

The Examiner recognizes that Bjarnason does not teach forming a portion of a precoder in a transmit path as recited in Claims 1 and 8. The Examiner cites Turner to cure this deficiency of Bjarnason. (Examiner's Final Action, page 5). Turner, however, does not teach or suggest a

precoder having a portion formed from reconfiguring a noise prediction equalizer to concatenate with a decision feedback equalizer as recited in Claims 1 and 8. Instead, Turner teaches a precoder that has a dedicated multitap filter (29 of Figure 1). The Applicants do not find any suggestion in Turner that a portion of a precoder is formed from a reconfigurable decision feedback equalizer. More specifically, the Applicants do not find where a decision feedback equalizer is reconfigurable to concatenate with a decision feedback equalizer to form a portion of a precoder as claimed in the present invention.

Neither Bjarnason nor Turner teach reconfiguring a noise prediction equalizer as claimed in the present invention. Additionally, neither Bjarnason nor Turner provide any motivation to reconfigure a noise prediction equalizer to form a portion of a precoder. Bjarnason simply teaches a decision feedback equalizer associated with a receiver path and Turner teaches a precoder having a designated filter. Thus, the cited combination of Bjarnason and Turner fails to teach or suggest reconfigurability of the invention recited in independent Claims 1 and 8. Hence, the cited combination of Bjarnason and Turner does not present a *prima facie* case of obviousness of Claims 1-14. Accordingly, the Applicants respectfully request the Examiner to withdraw the 35 U.S.C. §103(a) rejection and issue allowance for Claims 1-14.

## **II. Rejection of Claims 15-28 under 35 U.S.C. §103**

The Examiner has rejected Claims 15-28 under 35 U.S.C. §103(a) as being unpatentable over Turner in view of Bjarnason and U.S. Patent No. 5,512,898 to Norsworthy, *et al.* (Norsworthy). The Applicants respectfully disagree.

As discussed above, the cited combination of Turner and Bjarnason does not teach or suggest a noise prediction equalizer that is reconfigurable to concatenate with a decision feedback equalizer thereby forming a portion of a precoder in a transmit path. Since independent Claims 15 and 22 include a decision feedback equalizer adapted to concatenate, the cited combination of Turner and Bjarnason also does not teach or suggest each and every element of independent Claim 15 or independent Claim 22. Rather than being cited to cure this deficiency, Norsworthy has only been cited to teach a decimator that is coupled to an analog-to-digital converter. (Examiner's Final Action, page 8). Thus, the Examiner's combination of Turner, Bjarnason and Norsworthy does not teach or suggest each and every element of independent Claims 15 or 22 and Claims dependent thereon.

Accordingly, the Examiner's combination of Turner, Bjarnason and Norsworthy does not present a *prima facie* case of obviousness of Claims 15-28. Thus, the Applicants respectfully request the Examiner to withdraw the 35 U.S.C. §103(a) rejection and issue allowance for Claims 15-28.

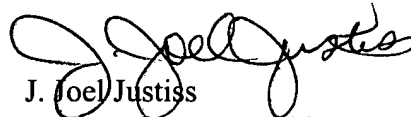
### III. Conclusion

In view of the foregoing amendment and remarks, the Applicants now see all of the Claims currently pending in this application to be in condition for allowance and therefore earnestly solicit a Notice of Allowance for Claims 1-28.

The Applicants request the Examiner to telephone the undersigned attorney of record at (972) 480-8800 if such would further or expedite the prosecution of the present application.

Respectfully submitted,

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